

REMARKS

Claims 1-5, 8-16, 21-27, 30, 31, 35-38, 40-42, 46-50, 52, 56 and 57 are pending. Claims 1-5, 8-16, 21-27, 30, 31, 35-38, 40-42, 46-50, 52, 56 and 57 are rejected. Applicant traverses these rejections and respectfully requests reconsideration of the rejected claims in light of the following remarks.

Claim Rejections Under 35 U.S.C. §103

Claims 1, 8-16, 21-23, 35, 40-42, 46, 52, 56 and 57 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent 5,116,563 to Thomas et al. ("Thomas").

Claims 1-5, 8-16, 21-27, 30, 31, 34-38, 40-42, 46-50, 52, 56 and 57 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent Publication US 2003-0012921 A1 to Gallant et al. ("Gallant") in view of Thomas.

Thomas is directed towards a process of producing free formed prongs for a mechanical fastening system and discloses a relationship between the included angles of the prongs relative to a substrate plane and the shear strength of the fastening system. Gallant discloses a method of forming a mold having cavities for molding hook fastener elements and a resulting fastener formed by the mold.

Regarding claims 1, the Examiner contends that it would have been obvious to change the size of the fastener disclosed in Thomas to achieve a fastener having a head with an overall height that is greater than 55 percent of an overall height of the fastener element, and a ratio of an overall height of the crook to an entrance height that is greater than 0.6, because Thomas discloses obtaining different shapes and sizes of fastener components by changing the operating parameters of an apparatus for making fasteners. Examiner cites In re Rose for the proposition that the change in fastener size would merely be a design consideration within the skill of the art. Applicant respectfully disagrees.

Applicant respectfully notes that Applicant's claims are not about size, but about *ratios* of dimensions; and while it may be true that changing a *size* of a device is generally held to be within ordinary skill absent special considerations, it is not true that any advance in the art fueled by a new realization of the importance of particular and previously unrecognized relationships of

dimensions is necessarily obvious under the doctrine of In re Rose. In Ex Parte Buchanan (Appeal No. 2000-0522, 2000 WL 33301735 B.P.A.I. 2000), for example, the Examiner rejected claims to a package convertible into a serving bowl, which recited sides of no less than twice the width of the bottom of the package. There, the claimed relationship between two recited variables was not found in the prior art, but the examiner rejected the claims under §103, citing In re Rose and concluding that a mere change in the height of the walls would have been obvious. The Board reversed the rejection, finding that "the modification suggested by the Examiner to meet the claimed ratio would involve modification of one dimension relative to another," namely, the walls to the bottom, and that the Examiner could not supply the missing characteristic by characterizing it as mere design choice. The Board also noted that the relationship or ratio between the recited two variables was not arbitrary; rather, as is the case here, was discovered to solve a stated problem.

Applicant's touch fastener components have particularly good peel resistance and other performance characteristics, especially when mated with loop materials having open structures, such as those loop materials having a relatively low pile height to filament diameter ratio. The particular combinations of key ratios recited in Applicant's independent claims are not arbitrary, but have been found by Applicant to help enable closures with performance characteristics more typical of woven hook products than molded hook products, but at a much lower overall profile, for reasons that become clear to those of ordinary skill in this art only upon Applicant's disclosure.

The Examiner also contends that it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the fastener disclosed in Thomas to achieve a fastener having a head with an overall height that is greater than 55 percent of an overall height of the fastener element, and a ratio of an overall height of the crook to an entrance height that is greater than 0.6, because Thomas discloses that a relatively longer shank of a fastener element can penetrate deeper into a receiving surface and thereby allow the hooked element to intercept and engage a greater number of stands or fibers versus a relatively shorter shank. Applicant respectfully disagrees. Changing the height of a fastener component does not suggest or enable a

particular relationship between the height of the fastener head and the overall height of the fastener element; nor does it disclose any ratio between the overall height of the crook to an entrance height of the fastener. Furthermore, Thomas's presumed ability to change the shape and size of his fastener projections by changing the operating parameters of his forming process does not render obvious Applicant's recited particular combination of fastener feature relationships.

The Examiner takes official notice that a fastener component having two crooks and an upper well is well known in the art. Applicant will concur that two-crook fastener elements with upper wells are found in the prior art, but Applicant does not concur that finding such elements in the prior art makes reciting such features in connection with or in the context of the broader claimed invention obvious. Applicant does not concur that patentability of the claims is determined by such notices.

Regarding claim 35, the Examiner contends that it would have been obvious for a person of ordinary skill in the art to have a fastener with a bulk aspect ratio of more than 0.020 inch (0.51 mm) through optimization of proportions in a prior art device, citing In re Reese.

In re Reese held that optimum proportions of *ingredients* for a medical carrier (e.g. tablet) were obvious because the improved results derived from the optimum proportions stemmed from "experimentation of an obvious nature." In re Reese, 290 F.2d 839, 844 (C.C.P.A. 1961). In that case there was a small number of well known ingredients commonly employed in such products and what was involved was mere optimization of proportions of the ingredients to optimize a known outcome. In the mechanical arts, one is not faced with a clearly defined list of ingredients, but rather physical attributes or characteristics the number of which is only limited by one's imagination. Thus, unlike in In re Reese, if someone of ordinary skill in the art of fastener design were to undertake experimentation to optimize fastener performance, he or she would not approach such a task with a defined and limited number of known ingredients, but would rather first have to determine which fastener attributes were to be proportioned. Such a determination as developed by Applicant would have been far from obvious, as evidenced at least by the fact that Applicant's resulting structures have not previously been developed over

decades of fastener improvement. Applicant is the first to determine, for example, that the ratio of the product of an overall length of a fastener element and fastener element thickness, to an overall height of the fastener element, has an effect on fastener performance, and has given this newly identified ratio the name "bulk aspect." It is improper to dismiss such new conceptual advances in the art as mere optimization.

The Examiner has conceded in previous office actions that the drawings of the cited references are not to scale, but still contends that the claimed relationship between the height of the fastener head and the overall height of the fastener element, as well as the ratio between the overall height of the crook to an entrance height of the fastener were obvious to a person of ordinary skill in the art at the time of the invention. However, "patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue." Go Medical Industries Pty., Ltd. v. Inmed Corp., 471 F.3d 1264,1271 (C.A.Fed. 2006); Hockerson-Halberstadt, Inc. v. Avia Group, Int'l, Inc., 222 F.3d 951, 956 (Fed. Cir. 2000); see also In re Wright, 569 F.2d 1124, 1127 (C.C.P.A. 1977) ("Absent any written description in the specification of quantitative values, arguments based on measurement of a drawing are of little value."). In Hockerson-Halberstadt, a patent owner's argument hinged on an inference drawn from certain figures about the *quantitative relationship* (i.e., ratio) between the respective widths of a groove and fins in a heel of an article of footwear. The court held that precise proportions cannot be read into patent drawings which do not expressly provide such proportions. Hockerson-Halberstadt, 222 F.3d 951, 956 (Fed. Cir. 2000). Thomas fails to disclose or suggest any particular relationship between the height of the fastener head and the overall height of the fastener element; nor does it disclose any ratio between the overall height of the crook to an entrance height of the fastener.

Regarding claim 46, the aforementioned arguments regarding claim 1 apply to claim 46, in pertinent parts.

Applicant respectfully requests reconsideration of the pending claims, that the rejection of claims 1 and 46 and any corresponding dependent claims be withdrawn, and these claims be allowed.

CONCLUSION

Examiner is invited to call the undersigned attorney of record to discuss any questions regarding this matter.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reason for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to amendment.

Any fees due are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply all charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 05918-339001.

Respectfully submitted,

Date: November 15, 2007

/Brett A. Krueger/

Brett A. Krueger

Reg. No. 54,243

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906